

Catalogue of American Amphibians and Reptiles.

ERNST, CARL H. 1983. *Platemys spixii*.

***Platemys spixii* Duméril and Bibron**
Black spiny-necked turtle

Emys depressa Spix, 1824:4. Preoccupied by *Emys depressa* Merrem, 1820:22. Type-locality, "aquis paludosis provinciarum Rio de Janeiro et fluminis Sti Francisci" Brazil. Holotype, Zoologische Sammlung des Bayerischen Staaten, München 3003/0, female shell, collector and date not given (examined by the author).

Platemys spixii Duméril and Bibron, 1835:409. Type-locality, "Brésil." Holotype, Nat. Mus. Natur. Hist., Paris 8751, dry mounted male, collected in Brazil by Auguste St.-Hilaire, date unknown (examined by author).

Hydraspis spixii; Gray, 1844:39.

Acanthochelys spixii; Gray, 1873:305.

Platemys radiolata spixii; Pritchard, 1979:780.

- CONTENT. *Platemys spixii* is a monotypic species.

- DEFINITION. Adults grow to 172 mm in carapace length; there is no apparent sexual dimorphism in size. The flat, ovate carapace widens posteriorly and has a shallow middorsal groove extending from the posterior third of the first vertebral to the anterior third of the fifth vertebral scute. In adults, the first and fifth vertebrals are much wider than long, the first widest of all; whereas, the second to fourth vertebrals are as wide as long or longer than wide. The cervical is broad. The anterior and posterior most marginals are wider than the lateral ones. The posterior marginals are only slightly or not serrated. The carapacial scutes often possess concentric and radiating growth striations. The carapace is highest just anterior to the seam between the second and third vertebrals, and widest at the level of the seventh or eighth marginals. In color, the adult carapace is dark gray to black. Occasionally some yellow may occur at the base of the pleurals. The adult plastron and bridge are usually uniformly dark gray or black, but occasional individuals have small yellow spots along the plastral midseam. The forelobe is broader than the hindlobe and is slightly upturned. The hindlobe has a wide posterior notch. The intergular scute is long, often over half as long as the length of the plastral forelobe. The head is olive to gray, and the unnotched jaws are yellow to horn in color. The dorsal surface of the head is covered with numerous variably shaped scales arranged in three or four lateral rows above the tympanum. The snout is short and only slightly projecting. Two small gray barbels are on the chin. The iris of the eye is white. The dorsal surface of the neck contains long pointed tubercles which become fewer and shorter laterally. The toes are webbed; the anterior surfaces of the limbs are covered with large scales. The thighs contain several rows of spiny tubercles. The tail is relatively short. The soft parts of the body are colored olive to gray.

Males have concave plastra and longer, thicker tails with the vent beyond the carapacial rim; females have flat plastra with upturned anal scutes, and shorter tails with the vent beneath the carapace.



FIGURE 1. *Platemys spixii*. Photograph by Roger W. Barbour.

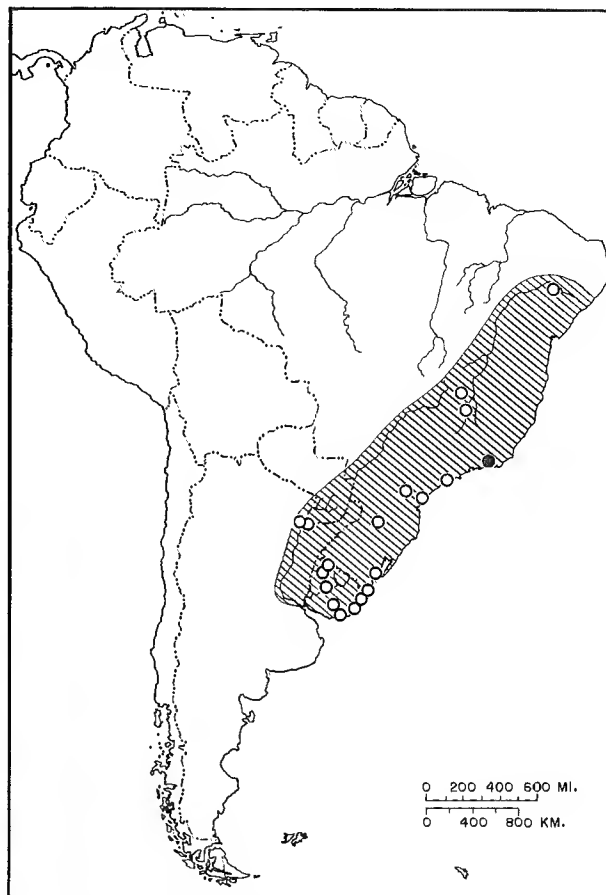
- DESCRIPTIONS. Adult *Platemys spixii* are described in Duméril and Bibron (1835), Boulenger (1889), Luederwaldt (1926), Kanberg (1937), Freiberg (1940, 1967), Vaz-Ferreira and Sierra de Soriano (1960), and Pritchard (1967, 1979). Rathke (1846, 1848) briefly discusses embryology.

- ILLUSTRATIONS. A colored photograph of an adult *Platemys spixii* is in Goode (1967). Black and white photographs of adults appear in Kanberg (1937), Freiberg (1940, 1967, 1981), Pritchard (1979), McCoy (1981), and on the inside front cover of the International Turtle and Tortoise Society Journal 6(1), Jan.-Feb. 1972. Photos of a juvenile are in Luederwaldt (1926). Drawings of adults are in Vaz-Ferreira and Sierra de Soriano (1960) and Wermuth and Mertens (1961). Drawings of both the carapace and plastron occur in Freiberg (1940) and Wermuth and Mertens (1961). Kiliass (1957) presents a dorsal drawing of a skull labeled "*P. spixii*"; however, this specimen is a *Platemys platycephala* (A. G. J. Rhodin, pers. comm.). A photograph of the eggs is in Freiberg (1981).

- DISTRIBUTION. *Platemys spixii* ranges from the Rio Sao Francisco, southward through southeastern Brazil and Uruguay, and westward to the territories of Formosa and Chaco in Argentina.

- FOSSIL RECORD. *Platemys spixii* has no fossil record.

- PERTINENT LITERATURE. In addition to descriptions, little has been published on *Platemys spixii*. Freiberg (1981) gives a general account. Blood chemistry is discussed by Frair (1980), and the rhombencephalon by Schwab (1979). Mañé-Garzón and Holcman-Spector (1969) and Mañé-Garzón and Gill (1971) list some helminth parasites from Uruguayan *P. spixii*. A list of its vernacular names and their meanings is in Mittermeier et al. (1980). Vaz-Ferreira and Sierra de Soriano (1960) discuss its habitat re-



MAP. Solid circle marks type-locality; open circles indicate other localities.

quirements in Uruguay. Coelho et al. (1975) discuss its potential for snail predation, and Rhodin et al. (1981) its feeding habits.

• ETYMOLOGY. The specific name *spixii* honors Johann Baptist de Spix, one of the first naturalists to study Brazilian turtles.

COMMENT

The relationship of *Platemys spixii* and *P. radiolata* is likely but requires confirmation. Also, the ecology of *P. spixii* remains largely unknown.

LITERATURE CITED

- Boulenger, George Albert. 1889. Catalogue of the chelonians, rhynchocephalians, and crocodiles in the British Museum (Natural History). Taylor and Francis, London. x + 311 p.
- Coelho, P. M. Z., F. D. C. B. Boson, and S. E. Gerken. 1975. Potencialidade de predação à *Biomphalaria glabrata* (Say, 1818) por duas espécies de quelônios sul-Americanos: *Platemys spixii* e *Chrysemys dorsibignii*. Cienc. Cult. 27(3):301-303.
- Duméril, A. M. C., and G. Bibron. 1835. Erpétologie générale ou histoire naturelle complète des reptiles. Vol. 2. Librairie Encyclopédique de Roret, Paris. iv + 680 p.
- Frair, Wayne. 1980. Serological survey of pleurodiran turtles. Comp. Biochem. Physiol. 65B:505-511.
- Freiberg, Marcos A. 1940. Una nueva especie de tortuga para la fauna Argentina. Mem. Mus. Entr. Rios. (12):1-6.
- 1967. Tortugas de la Argentina. Cienc. Invest. 23(8):351-363.
- 1981. Turtles of South America. T. F. H. Publ., Inc., Neptune, New Jersey. 125 p.
- Goode, John. 1967. Freshwater tortoises of Australia and New Guinea. Landowne Press, Melbourne, Australia. 154 p.
- Gray, John Edward. 1844. Catalogue of the tortoises, crocodiles, and amphisbaenians, in the collection of the British Museum. Edward Newman, London. viii + 80 p.
- 1873. Observations on chelonians, with descriptions of new genera and species. Ann. Mag. Natur. Hist. (London) series 4, 11:289-308.
- Kanberg, Hans. 1937. Die Schildkröten der Gattung *Platemys* Wagl. Das Aquarium (Berlin) 11:64-65.
- Kilius, Rudolf. 1957. Die Funktionell-Anatomische und systematische Bedeutung der Schläfenreduktionen bei Schildkröten. Mitt. Zool. Mus. Berlin 33(2):307-354.
- Luederwaldt, Hermann. 1926. Os chelonios brasileiros, com a lista das espécies do Museu Paulista. Rev. Mus. Paulista 14: 405-469.
- Mañé-Garzón, Fernando, and Orlando Gill. 1971. Trematodos de las tortugas del Uruguay. Sobre el genero *Herpetodiplostomum* Dubois, 1936 (Trematoda, Strigeidae). Bol. Soc. Zool. Uruguay 1:18.
- , and Barbara Holman-Spector. 1969. Trematodos de las tortugas del Uruguay, IX. Tres nuevas especies del genero *Herpetodiplostomum* Dubois, 1936. Comun. Zool. Mus. Hist. Natur. Montevideo 10(126):1-11.
- McCoy, Clarence J., Jr. 1981. Amphibians and Reptiles. Carnegie Mag. 55(3):25-33.
- Merrem, Blasius. 1820. Tentamen Systematis Amphiborum (Versuch eines Systems der Amphibien). Johann Christian Krieger, Marburg. xv + 191 p.
- Mittermeier, Russell A., Frederico Medem, and Anders G. J. Rhodin. 1980. Vernacular names of South American turtles. Soc. Stud. Amph. Rept. Misc. Publ., Herp. Circ. (9): 1-44.
- Pritchard, Peter C. H. 1967. Living turtles of the world. T. F. H. Publ., Inc., Jersey City, New Jersey. 288 p.
- 1979. Encyclopedia of turtles. T. F. H. Publ., Inc., Neptune, New Jersey. 895 p.
- Rathke, Heinrich. 1846. On the development of the Chelonians. Ann. Mag. Natur. Hist. (London) 18(35):316-323.
- 1848. Über die Entwicklung der Schildkröten. Friedrich Vieweg und Sohn, Braunschweig. 267 p.
- Rhodin, Anders G. J., Frederico Medem, and Russell Mittermeier. 1981. The occurrence of neustophagia among podocnemine turtles. British J. Herpetol. 6(5):175-176.
- Schwab, Martin Ernst. 1979. Variation in the rhombencephalon, p. 201-246. In Carl Gans, R. Glenn Northcutt, and Philip Ulinski (eds.), Biology of the Reptilia, Vol. 10. Neurology B. Academic Press, London.
- Spix, Johann Baptist de. 1824. Animalia nova, sive species novae testudinum et ranarum, quas in itinere per Brasiliam annis MDCCCXVII-MDCCCXX jussu et auspiciis Maximiliani Josephi I. Franc. Seraph. Hubschmanni, Monachii. 24 p.
- Vaz-Ferreira, Raul, and Blanca Sierra de Soriano. 1960. Notas sobre reptiles del Uruguay. Rev. Fac. Hum. Cienc. Univ. Montenegro 1960(18):133-206.
- Wermuth, Heinz, and Robert Mertens. 1961. Schildkröten, Krokodile, Bruchenechsen. G. Fischer, Jena. 422 p.
- C. H. ERNST, GEORGE MASON UNIVERSITY, FAIRFAX, VIRGINIA 22030.

Primary editor for this account, George R. Zug.

Published 27 September 1983 and Copyright 1983 by the SOCIETY FOR THE STUDY OF AMPHIBIANS AND REPTILES.